

Hampton US1/NH101 Interchange Realignment & Intermodal Transit Center Feasibility Study

Hampton Selectmen
February 29, 2016



Project Background

Responds to Recommendations in:

- US Route 1 Corridor Study (2009)
- Hampton Beach Master Plan (2001)
- RPC Long Range Transportation Plan (2012)



Project Purpose

To provide the Town of Hampton, the NHDOT and potential transit service providers with public input, design concepts and cost estimates to guide transportation and land use decisions related to the Route 1/Route 101 interchange.



To Exeter

To Town Center

US1/NH101 Interchange Study Area

Tidewater
Campground

Tuck
Museum



To Seabrook

To Hampton Beach

Project Scope

1. Environmental site assessment of interchange parcel
2. Concept design options for interchange realignment
3. Concept designs options for transit facility
4. Transit service potential - intercity, regional, local

Public Input

Advisory Committee

- Town of Hampton (4)
- Hampton Beach Area Commission
- Coastal Economic Development Commission
- Hampton Chamber of Commerce
- NHDOT
- NHDRED/State Parks
- Transit Providers (COAST, C&J, Flight Line)
- NH Seacoast Greenway

Public Meetings

- March 2013 – Public desires for site
- October 2013 - Presented design concepts



Environmental Site Assessment

- RPC Brownfields program (EPA funded)
- Eligible based on railroad, substation, landfill
- Phase I Site Assessment
- Phase II Site Assessment
 - Confirmed soil contamination at dump site
 - Dismissed contamination related to railroad
 - Dismissed contamination related to substation

Transit Feasibility Element

- Expanded I-95 intercity bus service to Boston
- Regional COAST service to Portsmouth
- Local shuttle connection to Hampton Beach
- Park & Ride usage estimates
- Cost estimates – capital and operating

Existing Intercity Service in I95 Corridor

- C&I
 - 32 daily RTs to S. Station/Logan – 1:30am-11:30pm
 - Dover-Portsmouth-Newburyport-Logan-Boston
- Regional Intermodal Centers
 - Portsmouth – 1210 parking spaces
 - Newburyport – 650 parking spaces

Potential New Services I95 Corridor

- I-95 Boston-Bound Commuter Bus
 - M-F, 8 Round Trips/Day
 - 6-7 Buses
 - Estimated gross cost \$1.4M/year, estimated farebox recovery \$970K after 3 years
 - Estimated ridership growing from 212 trips/day at initiation to 443 trips/day in Year 6
 - Census commute data and MBTA capture rates

Potential New Services Regional Public Transportation

- COAST Alternative A – US1 Seabrook-Portsmouth
 - M-F, 6 round trips/day, 2-hour headways 6am-6pm
 - Estimated cost with one bus: \$319,000
- COAST Alternative B – NH101 Commuter Service
 - M-F, one round trip/day
 - Epping-Exeter-Hampton-PNSY/Pease
 - Estimated cost with one bus \$89,000

Potential New Services


Beach Shuttle

Ridership & Cost Estimates

- Service 7 days/week, 8am-8pm, July 1 to Labor Day
- Connect Beach, transit center (town center, North Beach)
- Two buses
- 270 one way trips/day
- \$1.00 one-way fare
- Gross cost approx. \$105,000/summer, with net after farebox of ~\$87,000/summer

Transit Center Capacity Need

- Demand as function of transit demand
 - Boston commuter service
 - COAST commuter service
 - Beach shuttle use
 - General carpool use
- Yields estimated need of 218 parking spaces at initiation, growing to 329 spaces by year six



US ROUTE 1/NH ROUTE 101 INTERCHANGE REALIGNMENT & HAMPTON INTERMODAL TRANSIT CENTER

**BOARD OF SELECTMEN
FEBRUARY 29, 2016**

US 1/NH 101 INTERCHANGE

Existing Interchange

- Split US 1 (Up to 900')
- Short Weaving
- Intersections Too Close
- Convoluted Access to Route 101
- Poor Intersection Sight Distance
 - Inactive Rail Corridor
 - Available Space
- Environmentally Sensitive Areas Surround Interchange





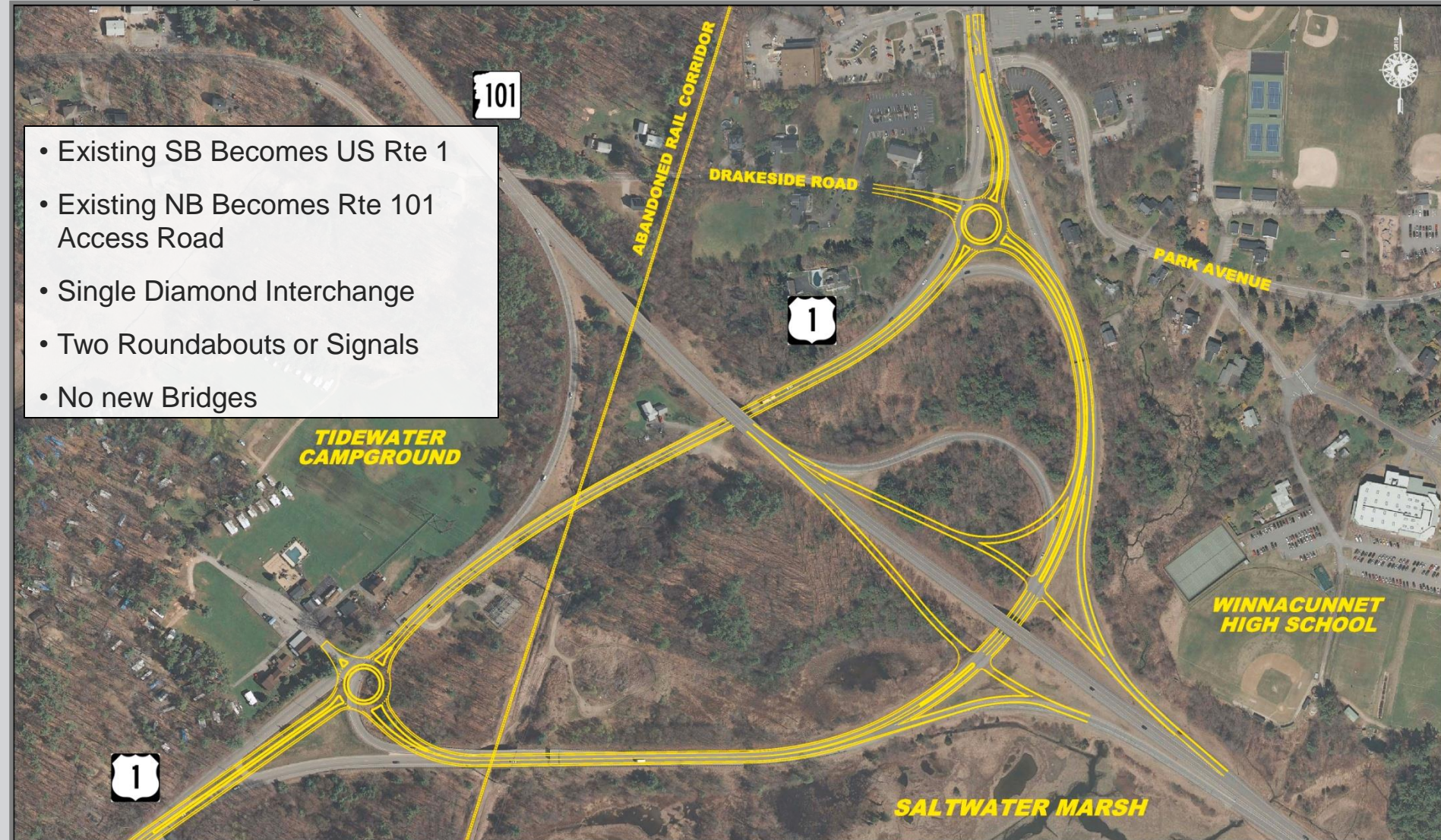
US ROUTE 1/NH ROUTE 101 INTERCHANGE REALIGNMENT & HAMPTON INTERMODAL TRANSIT CENTER



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Interchange Alternative A

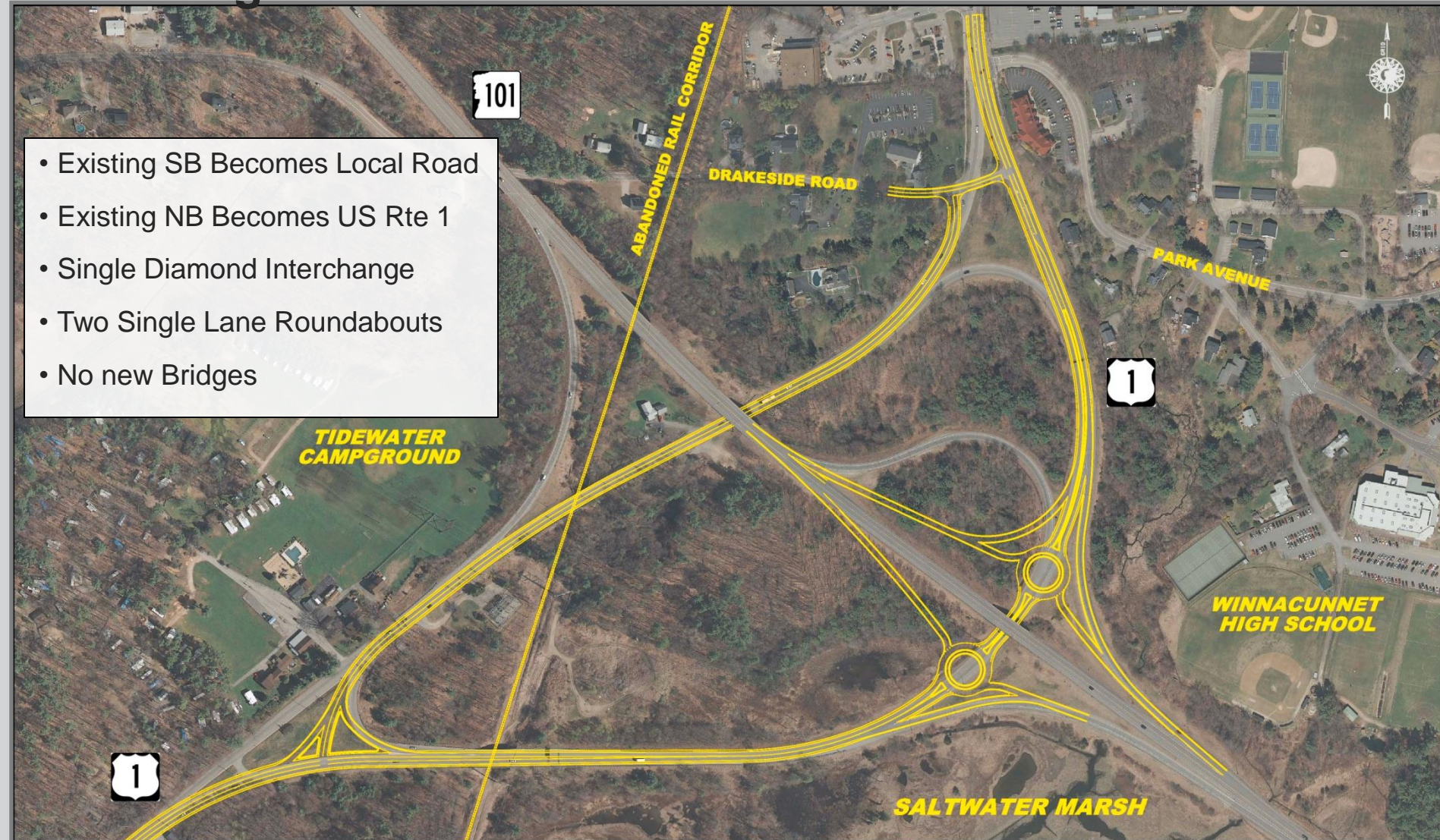
- Existing SB Becomes US Rte 1
- Existing NB Becomes Rte 101 Access Road
- Single Diamond Interchange
- Two Roundabouts or Signals
- No new Bridges



US ROUTE 1/NH ROUTE 101 INTERCHANGE REALIGNMENT & HAMPTON INTERMODAL TRANSIT CENTER

Interchange Alternative B

- Existing SB Becomes Local Road
- Existing NB Becomes US Rte 1
- Single Diamond Interchange
- Two Single Lane Roundabouts
- No new Bridges



US ROUTE 1/NH ROUTE 101
INTERCHANGE REALIGNMENT &
HAMPTON INTERMODAL TRANSIT CENTER

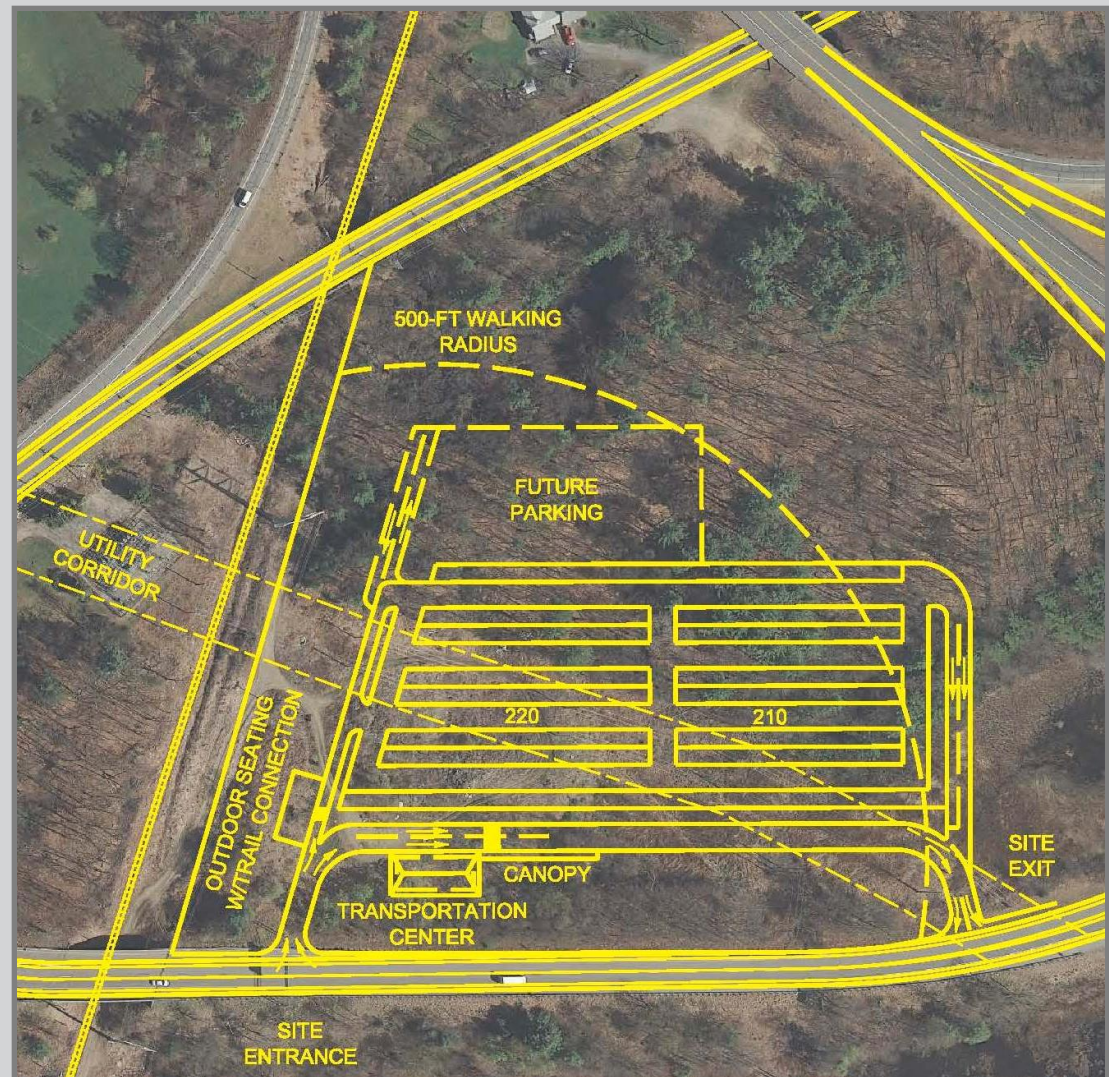
Interchange Alternative C

- Same as Alternative B
- Hybrid Roundabouts or Signals
- New Bridge is Required



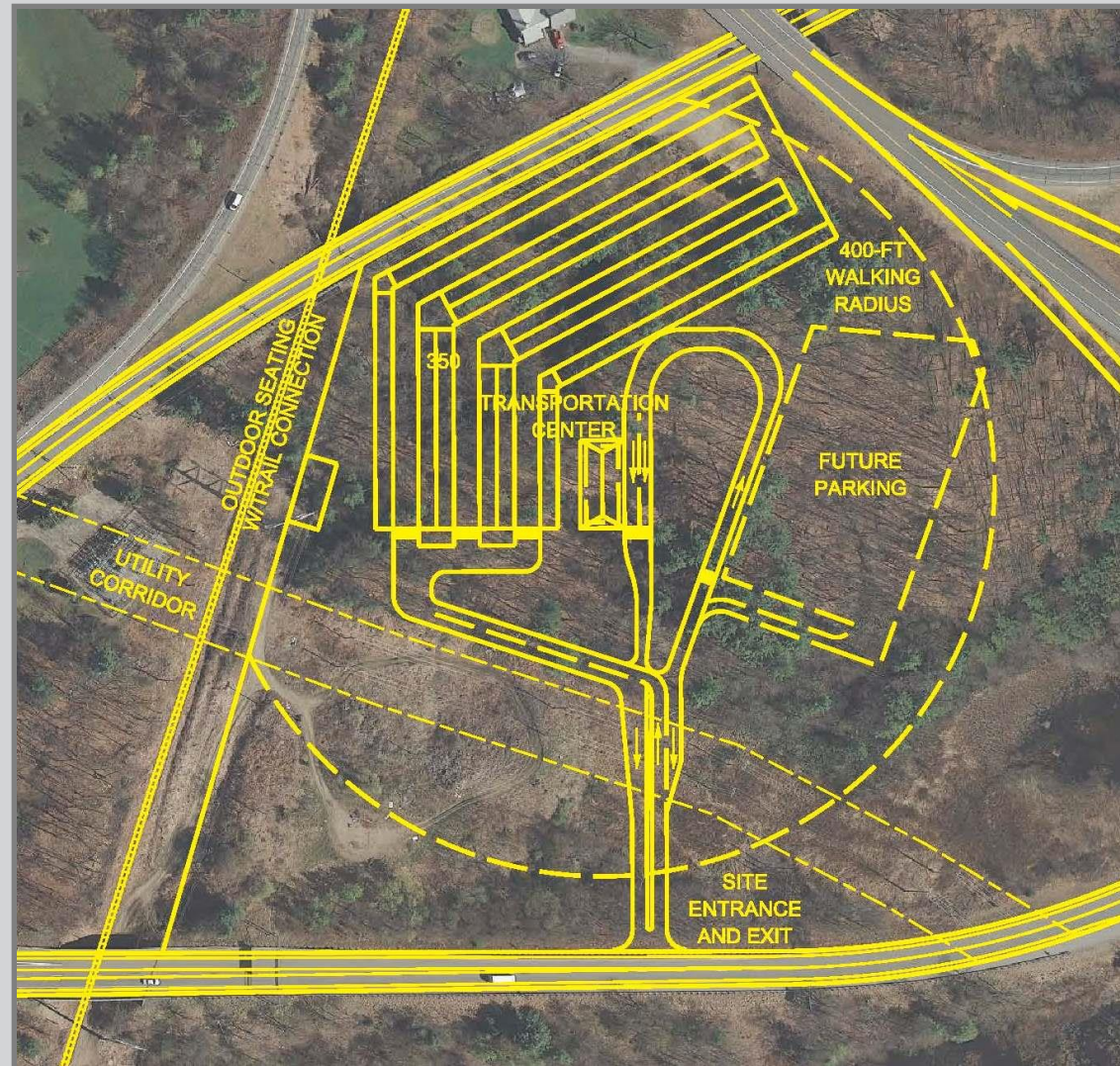
Transit Center Option 1

- Access to Rail Corridor
- Aerial Utilities through Parking
- Wetland Impacts
- Impacts Old Dump Site
- Within Projected Coastal Inundation
- Maximum Parking



Transit Center Option 1A

- Access to Rail Corridor
- Avoids Impacts of Option 1
- Fewer Parking Spaces



Transit Center Option 2

- Pedestrian Access to Downtown
- Utilizes both segments of Route 1





US ROUTE 1/NH ROUTE 101 INTERCHANGE REALIGNMENT & HAMPTON INTERMODAL TRANSIT CENTER

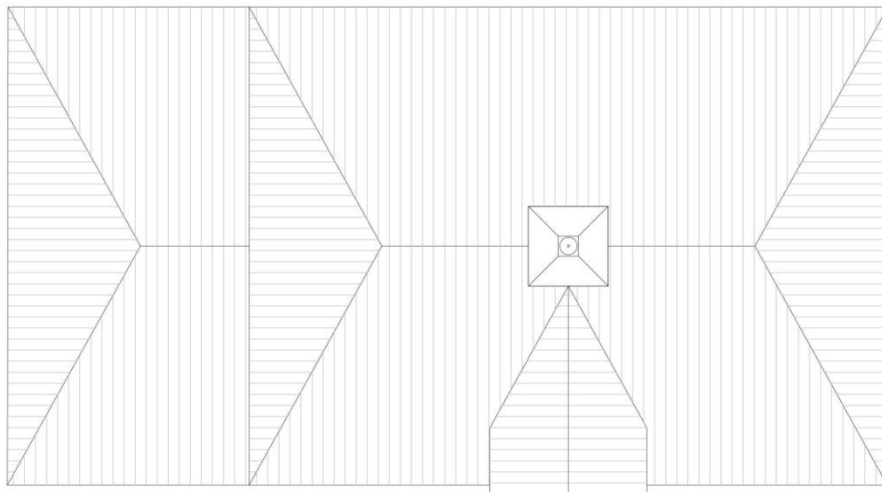


MAIN FACADE

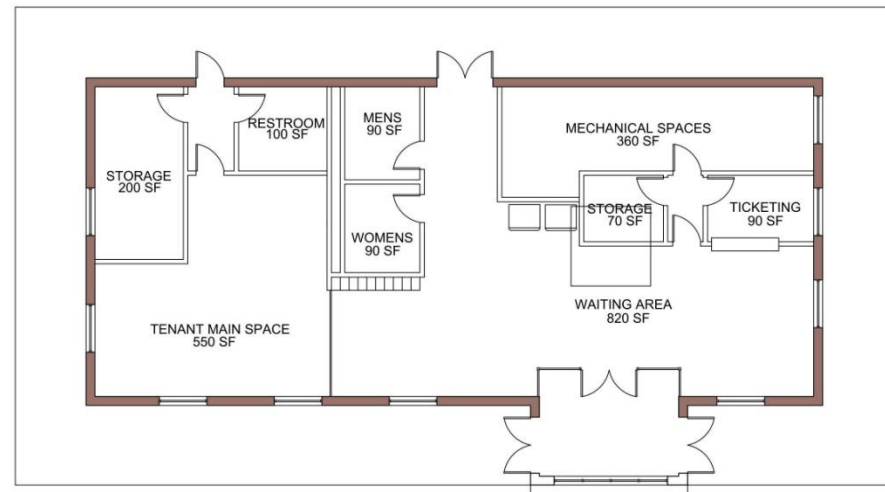


SIDE FACADE

Transit Center Building Concept 1



ROOF PLAN



FLOOR PLAN



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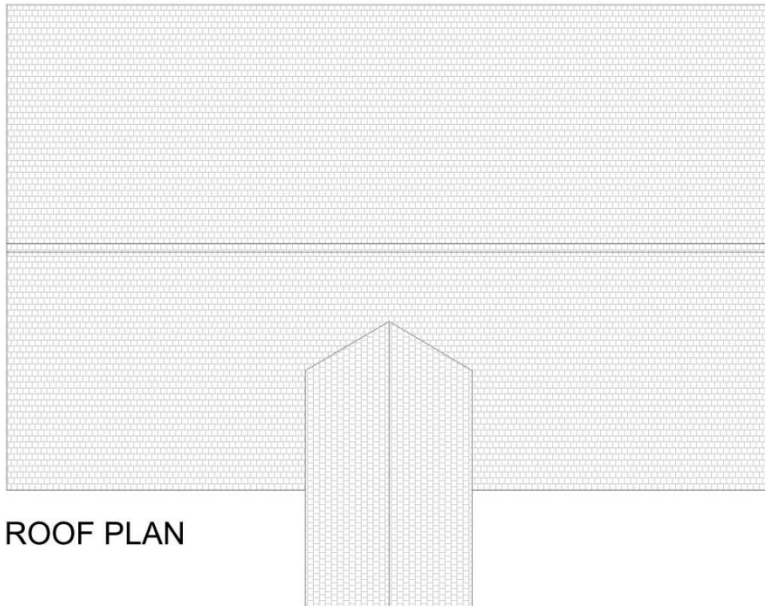


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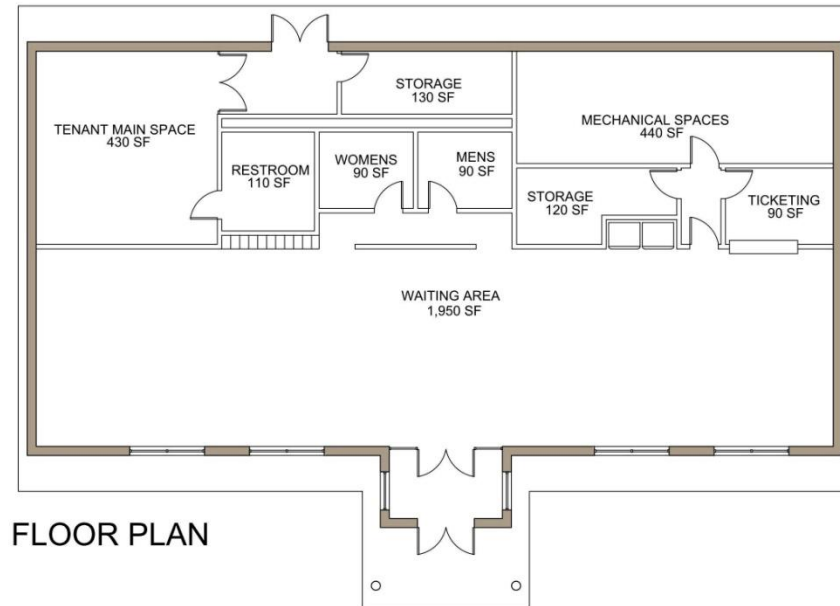


SIDE FACADE

Transit Center Building Concept 2



ROOF PLAN



FLOOR PLAN

Conceptual Cost Estimates

Interchange Alternatives

Alternative A = \$4.4 M

Alternative B = \$3.4 M

Alternative C = \$6.3 M

Transit Center Options

Option 1 = \$2.7 M to \$3.6 M

Option 1A = \$3.7 M to \$4.6 M

Option 2 = \$2.2 M to \$3.1 M

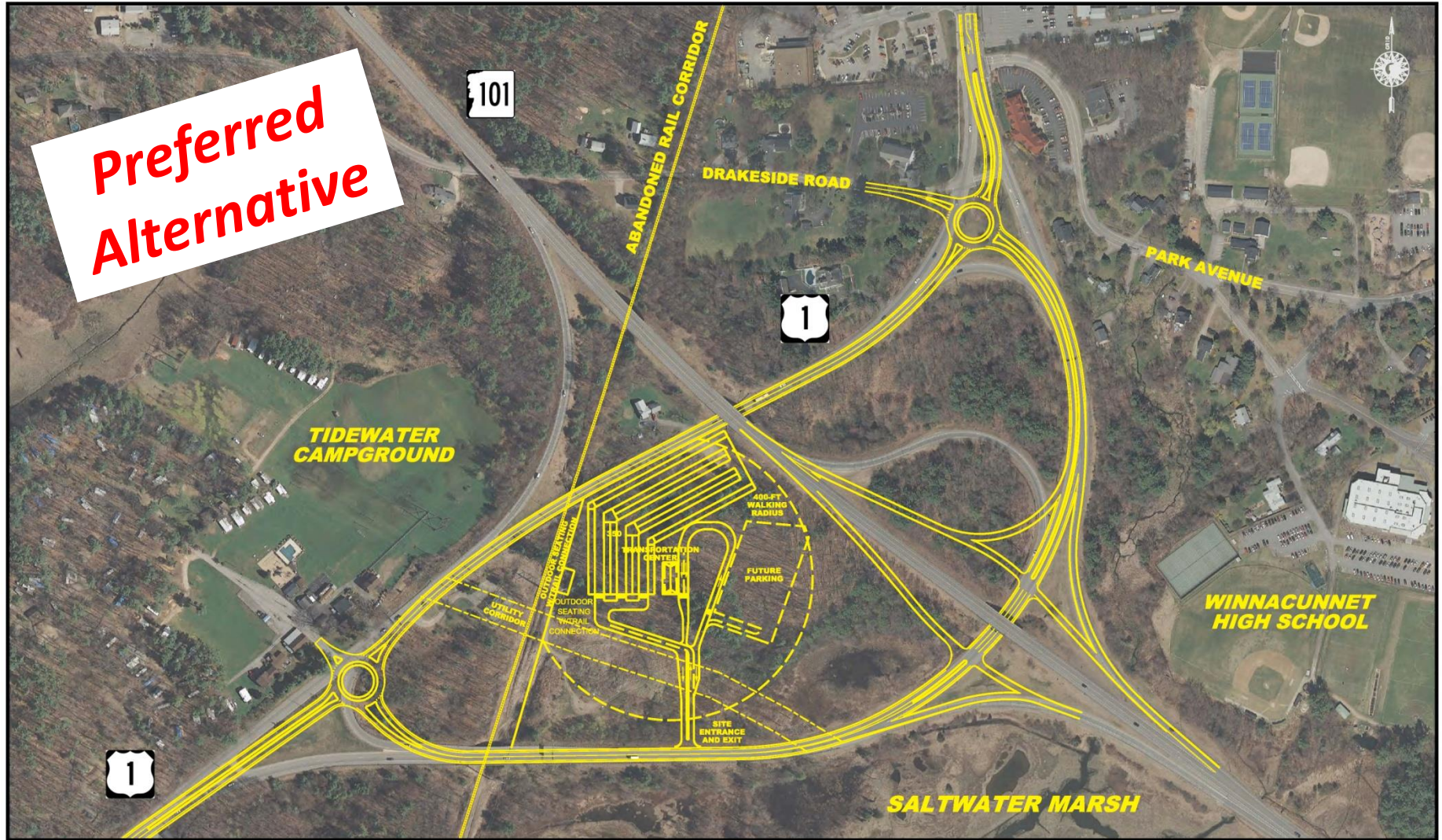
Notes

- Approx. Total Project Costs
- No improvements on Route 101
- No Mitigation Costs
- No Hazardous Materials Costs
- No Utility Relocation Costs
- No Right of Way Costs



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HAMPTON US 1 / NH 101 INTERCHANGE REALIGNMENT AND TRANSIT CENTER STUDY



250 0 125 250
SCALE IN FEET

INTERCHANGE ALTERNATIVE A - TRANSIT CENTER OPTION 1A

OCTOBER, 2013



US ROUTE 1/NH ROUTE 101 INTERCHANGE REALIGNMENT & HAMPTON INTERMODAL TRANSIT CENTER

QUESTIONS AND COMMENTS



Potential Funding Sources

- NH Ten Year Plan process for interchange
 - Surface Transportation Block Grant Program
 - National Highway Performance Program
- CMAQ for transit center and transit service pilots
- Farebox revenue
- FTA Section 5307 funds for ongoing transit operations
- Public/private partnership for beach shuttle
- Other non-USDOT match (municipal, PNSY)
- Parking fees - would need to be part of broader fee structure on all State park & ride facilities

Summary Implementation Steps

- Update listing on RPC Long Range Plan (RPC & Town)
- Submit for NHDOT 10 Year Plan (Town & RPC)
- Inclusion in other plans (Beach Master Plan, CEDS) (Town)
- Monitor regional park and ride capacity planning (RPC)
- Refine beach shuttle proposal (Chamber, HBAC, Village District)
- Refine commuter service proposals (NHDOT, RPC, Carriers, PNSY)
- CMAQ grant application (NHDOT, RPC, Town)

Questions/Comments & Follow-Up

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